1/8

START

S101

COBALT IS DISSOLVED IN HYDROCHLORIC ACID SOLUTION.
THE CONCENTRATION OF THE HYDRO-CHLORIC ACID IS ADJUSTED IN A RANGE OF 0. 1kmo1/m³ TO 3kmo1/m³.

S102

WHILE INJECTING INERT GAS INTO THE AQUEOUS SOLUTION OF COBALT CHLORIDE M, THE AQUEOUS SOLUTION OF COBALT CHLORIDE M IS CONTACTED WITH THE METAL 11 TO CONVERT THE COPPER TO THE MONOVALENT COPPER IONS.

S103

THE AQUEOUS SOLUTION OF COBALT CHLO -RIDE M IS CONTACTED WITH THE ANION EXCHANGE RESIN 21 TO SEPARATE THE COPPER AS WELL AS ZINC AND THE LIKE FROM THE COBALT.

S104

THE CONCENTRATION OF HYDROCHLORIC ACID OF THE AQUEOUS SOLUTION OF COBALT CHLORIDE M IS ADJUSTED TO 7 TO 11kmol/m³, AND THE COBALT IS ADSORBED ON THE ANION EXCHANGE RESIN 21 TO SEPARATE THE COBALT FROM THE IMPURITIES SUCH AS TITANIUM.

S105

2.5 TO 5kmol/m³ OF HYDROCHLORIC ACID SOLUTION IS PASSED THROUGH THE COLUMN 22 TO ELUTE THE COBALT IN ORDER TO SEPARATE THE COBALT FROM THE IMPURITIES SUCH AS MOLYBDENUM.

CONTINUE TO FIG.2

FIG.1

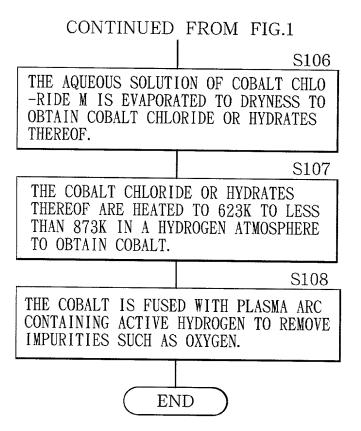


FIG.2

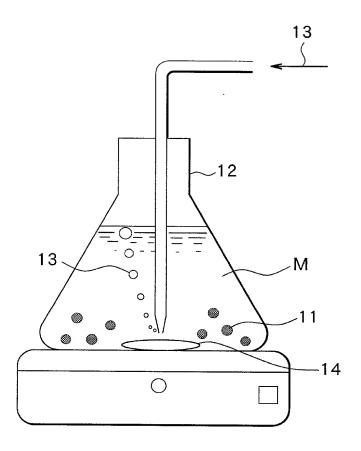


FIG.3

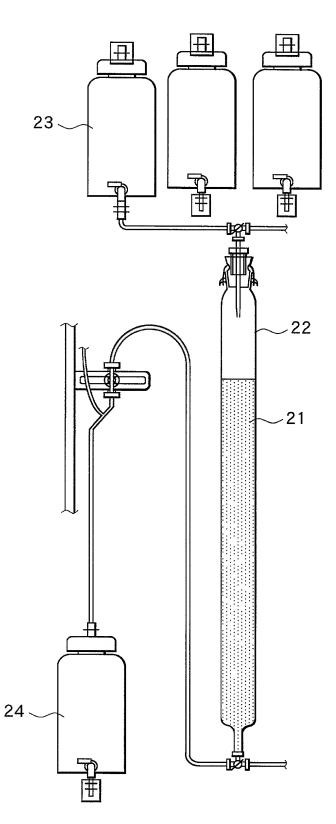


FIG.4

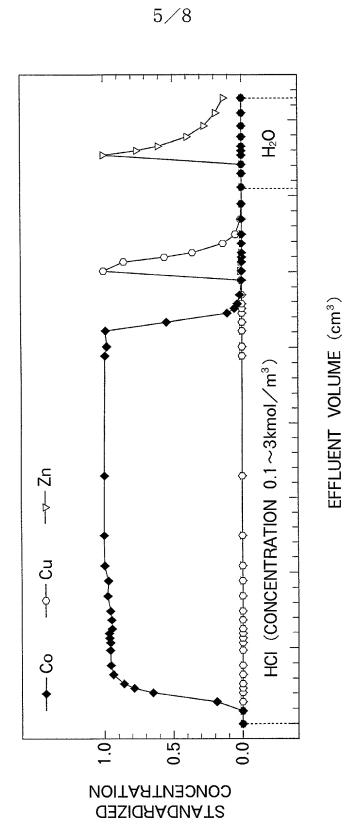
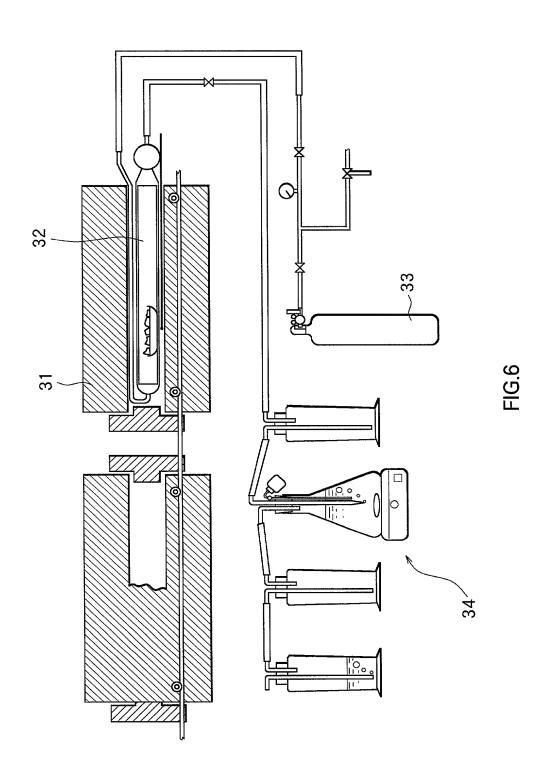


FIG.5



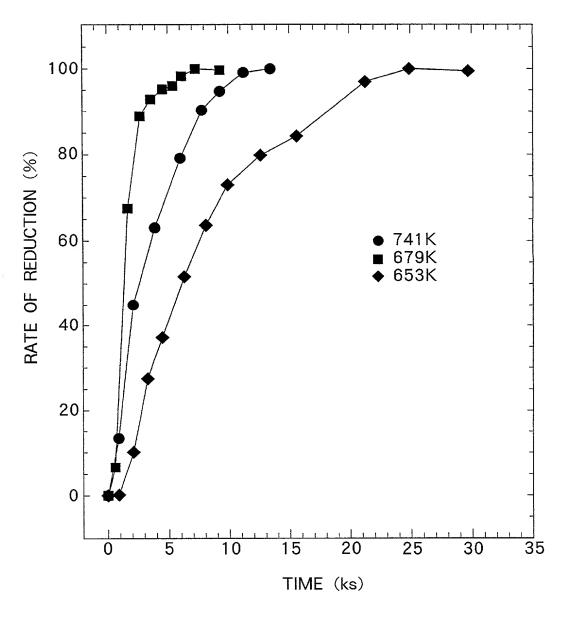


FIG.7

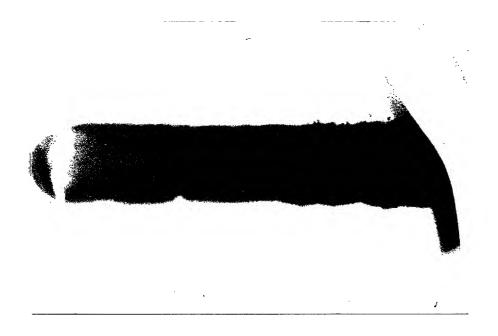


FIG.8